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AUTHOR Boraks, Nancy
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ABSTRACT

In order to determine how to enable teachers to become more effective in individualizing reading instruction, 75 preservice teachers who were enrolled in a general education course were observed as they tutored second and third grade children in reading twice a week for one semester. A brief analysis of the literature on the behavior of teachers in one-to-one instructional interaction and an exploration of preservice teacher behavior in tutoring reading suggest that preservice teachers might need instruction geared to help them do the following: (1) adapt teaching behaviors to the level of difficulty of materials and concepts taught, (2) develop skill in giving and interpreting directions, (3) develop skill in constructing a sequence of facilitating questions, (4) gain facility in dealing with open or unpredictable responses from children, and (5) gain the ability to redirect the behaviors of children who attempt to control reading instruction. The study also suggests that publishers might adapt and clarify directions given for children's exercises since much teacher time is given to reinterpreting directions. (JF)

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An Exploration of Pre-Service Teacher Behavior in the Individualization of Reading Instruction

Nancy Boraks
Virginia Commonwealth University
Richmond, Virginia

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An Exploration of Pre-Service Teacher Behavior in the Individualization of Reading Instruction

This study describes the behavior of the pre-service teacher tutoring primary children in reading. The goal is to determine what teaching behaviors or specific teaching strategies the pre-service teacher needs to be more effective in individualizing reading instruction.

There is reason to be concerned about a teacher's ability to take advantage of the one-to-one teaching interaction. For example, one would expect that the pre-service teacher's impact on a child's achievement would be greater than a non-trained adult and certainly greater than the impact of a sixth grader. This does not appear to be true. Bausell, Moody, and Walzl (1972), in assessing the effect of teacher training on a child's learning, compared the impact of the teaching of education seniors with that of sophomores who had no educational methods background. Both groups of college students tutored children, but education background of the tutor did not influence pupil achievement. Thomas (1970) attempted to determine the effect of teacher preparation on the reading gains of second graders tutored in reading. He found similar gains whether the tutor was a sixth grader or a pre-service teacher, when materials were on grade level.

Thomas (1970) also compared the teaching behavior of the sixth grade tutor and pre-service teacher. He found that pre-service teachers spend more time orienting, motivating, interrupting and clarifying instruction and explaining children's mistakes than did the sixth grade tutors. The sixth grade tutors were very direct in their approach to the teaching task and practiced their tutee more.

Thomas did not analyze the nature or quality of the pre-service teacher's explanations of children's mistakes, although this may have

clarified the impact of the pre-service teacher's use of reading instruction strategies.

The tendency of the pre-service teacher to orient and motivate more did pay off when the second graders were given more difficult materials (third and fourth grade levels). In this instance, children achieved greater gains when tutored by the pre-service teacher.

Neujahr (1970) described the behavior of teachers individualizing within classroom setting. Bellack's (1965) coding system was used.[1] Neujahr found that sixth grade teachers in the one-to-one interaction spent two-thirds of all instructional interactions on individualizing but five-sixths of these interactions involved questions of directions or procedures, not content. Since the teacher initiated almost one-half of these interactions, it would seem the teacher is alert to the need to provide guidance in procedures, but not alert to providing guidance with content.

As Neujahr (1970) concluded, the teacher individualizing in the classroom "is concerned with the progress the pupil is making, indicating what a pupil is to do, ascertaining that a pupil understands what is expected of him, and rating a pupil's work .. clearly the content is to be communicated by the material" (p. v).

The above research suggests that pre-service teachers need help in (1) determining the difficulty level of material or concepts to be taught;

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[1]Bellack's coding system analyzes each verbal move in terms of four major categories: structuring moves that serve to set the content of the interaction by focusing on a specific topic; soliciting moves that serve to elicit responses; responding moves that occur in relation to soliciting moves; and reacting moves that serve to clarify, expand or rate other moves. These moves are usually described in terms of two dimensions of classroom interaction: substantive (content) and instructional (procedures). Moves are also coded according to whether they are initiated or reflexive.

(2) adapting the use of orienting, motivating and correcting strategies to the difficulty level of the materials in order to use instructional time effectively; (3) becoming alert to the need to communicate content and facilitate learning of content; (4) develop skill giving directions and developing child's skill in following directions, and (5) since commercial materials play such an important role in instruction, teachers must be able to evaluate these terms of difficulty level of instructions as well as in terms of readability. Publishers should again be alerted to teacher dependence on materials and be encouraged to note facilitating question sequences which focus upon developing independence in use of word recognition and comprehension strategies. Publishers should also re-evaluate the clarity of directions provided and develop child's skills in using the formats they employ prior to launching children on learning and practicing with these exercises.

Research still does not provide much insight into the use of reading instruction strategies by pre-service teachers when instruction is individualized. Informal observations of pre-service teachers tutoring children (Boraks, 1973) revealed that students spent the majority of their time editing oral reading or instructing children in the use of games or worksheets. Instruction was almost totally dependent upon materials. These behaviors are apparently not unlike the behaviors of experienced teachers as reported by Austin and Morrison (1963).

In order to gain more specific information about the teaching behavior and needs of pre-service teachers when reading instruction is individualized, systematic analysis of teaching of reading interactions is needed. However, since any analysis of behavior following a reading

course might reflect only the relative effectiveness of a particular instructor, the generalizability of results would be limited. Moreover, the basic concern here is not what to add to a reading methods curriculum but to start building a curriculum based on needs of college students and the children they teach.

To determine teaching behaviors of pre-service teachers in a one-to-one setting, seventy-five teachers enrolled in a general education course were observed as they tutored second and third grade children in reading twice a week for one semester (Boraks, 1973), and the protocols from this study were reanalyzed to explore areas where further instruction might have facilitated the teaching behaviors of the pre-service teacher. The only preparation provided students was the basic instruction outlined in the National Reading Center Tutor Training Manual. Intercorrelation, mean percent and standard deviations of specific verbal behavior (combining Flanders' and Bellack's coding systems) were computed. Protocols were coded by senior education students (interrater reliability .73-.85). Use of specific instructional reading strategies were not evidenced and were not computed.

The percentages of behavior are reported in Table I. The fact that the standard deviations are in many cases almost as large as the means suggests a great deal of variation between tutors and also requires caution in generalizing about the pattern of one-to-one interaction.

Some interactions, nonetheless, are suggestive of pre-service teachers' instructional needs. In this analysis, only active instructional periods were coded; extended periods of silent work were not coded or considered in the analysis of interactions. In these instructional periods,

someone was talking four-fifths of the time, but only two-fifths of this was teacher talk, Over one-half of the teacher talk was content oriented, but this talk represents only about one-fifth of the total instructional interaction. This percent of content-oriented statements can be compared with an analysis of classroom instruction in language arts (Giamatteo, 1963, p. 86) where thirty percent of teacher statements were found to be content oriented.

The character of the teacher statements, however, is more revealing than the percentages. In the one-to-one interaction only four percent of the total time was on facilitating content learning. These facilitating statements usually involved directions to children to focus on specific word elements or upon context for decoding purposes. Statements were not geared to helping children generate or use their own reading strategies, nor did teacher statements provide instructional input beyond explanations provided by materials. That is pre-service teachers, when content was not understood, would refer back to instructions provided in the material (you see here it says that...).

Intercorrelations among behaviors revealed a significant correlation between facilitating behavior and silence and confusion (.373). Thus, it appears the more a college student attempted to facilitate instruction, the more confusion resulted. However, an examination of protocols revealed this was not exactly the case. Initial facilitating statements were followed immediately by student responses. Follow-up attempts at facilitating were incomplete statements or run on statements which the child might have difficulty interpreting. For example: "Well, why did you...I mean did you think that it should...", and <u>these</u> attempts,

as might be expected, were followed consistently by silence and confusion. The college student initiated but did not know how to proceed with facilitating instruction or inquiry.

The goal in analyzing the behavior of pre-service teachers was to determine which skills should be introduced or stressed in a reading methods course. It would appear that pre-service teachers will need instruction in structuring a series of questions to help discover or resolve reading difficulties. Pre-service teachers could offer correct answers and define reading skills, but this did not suffice. They obviously want to, and need to facilitate thinking and decision making. Instruction is needed in this area; insight into this type of instruction is offered by Smith (1975) and Stauffer (1975).

To extend this exploration of teacher needs in individualizing instruction, a small scale experiment analyzing effect of an initial reading course on the verbal behavior of pre-service teachers tutoring children in reading was conducted. Students enrolled in two second-level reading courses (total N = 30) were asked to tape and transcribe a reading lesson with their tutee, after they had completed an informal diagnostic inventory.

These college students were mostly juniors, and were enrolled in a large urban university although half had transferred from other schools and received their initial reading course at their first institution.

There were no differences in protocols between transfer and non-transfer students. In fact, all protocols were (alarmingly) similar.

The analysis of protocols was limited to verbal interaction focusing upon word recognition skills. Lesson segments analyzed including the introduction of new words prior to story reading, review of a word

analysis skill, and help provided during and following oral rereading were analyzed. These pre-service college students with one course in reading offered almost exclusively two cues: directing the child to decode, and helping the child segment into single letter or syllable units the word for decoding. For example: Teacher: What does the first letter say?

Child: sss

Teacher: What does the next letter say?

Child: /a/

In only a few instances was a child directed to use context; the child was never asked how a word might be recognized.

It would seem pre-service teachers evolve from a stage of attempting to facilitate-to a pattern of systematic direction aimed at helping the child segment words.

To determine if specific instruction in facilitating strategies would enable pre-service teachers to take advantage of opportunities to develop self-directed learning, several strategies were taught to these junior pre-service teachers. Each strategy was briefly introduced, the rationale explained and the strategy role-played with peers. Strategies specified by Allen and reported by Gage (1968) were condensed and adapted (see Appendix A). The pre-service teachers were asked to practice these in their tutoring during their twice-weekly hour session which lasted for one semester.

During the final week of the semester students taped and transcribed a tutoring session. Tapes and transcribed protocols were consistent with semester-long observed behavior. Tutees selected their own reading materials, usually using children's books, basals or the child's own language experience stories.

An analysis of protocols indicated that these pre-service teachers continued to tend to ask the child to attend to specific word elements (limit search areas) but also used more strategies asking children to broaden search area (use context and use their own strategies). Almost all interactions involved obtaining attending behavior following a mis-identification of a word. Since attending behavior is crucial to learning word recognition, these can be considered important and useful behaviors. However, the pre-establishment of a cognitive set (as suggested by Stauffer), attempts to stimulate transfer or other designated strategies (Appendix A) were not consistently used.

These pre-service teachers, unlike the teachers Thomas reported on, seemed very task-oriented and the task focused upon materials. Perhaps concern about discipline or keeping children's attention accounts for lack of pre-reading discussion or strategies or perhaps the pre-service teachers own lack of ability to deal with the open responses which might be generated by attempts to establish cognitive sets or achieve closure account for the limited use of these strategies. Analyses of protocols also suggests the children also controlled teacher behaviors. When books were introduced children immediately clamoured for the opportunity to be first to read.

The impact of each of these strategies on the child's achievement is not clear and the point here is not to denegrate the pre-service teachers use of a limited set of behaviors. The point is, however, to suggest that unless pre-service teachers are helped to more systematically practice and develop skills in using broader strategies, they may restrict their

verbal behavior to questions to which they can almost predict responses (attending questions).

This initial exploration is tentative and is meant at this stage to suggest the need to watch the evolution of teacher behavior and to consider this evolution in terms of reassessing teacher education, development of basal reading, teacher guides, instructional materials, and teacher self-evaluation.

Summary

A brief analysis of the literature on the behavior of teachers in one-to-one instructional interaction and an exploration of pre-service teacher behavior in tutoring reading suggests that pre-service teachers might need instruction geared to help them 1) adapt teaching behaviors to the level of difficulty of materials/concepts taught, 2) develop skill in giving and interpreting directions, 3) develop skill in constructing a sequence of facilitating questions, 4) gain facility with dealing with open or unpredictable responses from children, and 5) gain awareness of and the ability to redirect the behaviors of children which attempt to control reading instruction. This exploration also suggests that publishers might adapt and clarify directions given for children's exercises since much teacher time is given to reinterpreting directions.

Table I

MEAN PERCENTAGE OF VERBAL BEHAVIOR FOR EACH CATEGORY OF THE ADAPTED FLANDERS INTERACTION ANALYSIS INSTRUMENT FOR ALL TUTORS

Category	Mean	Standard Deviation
1. Pos. Reinforcement	.0667	.0459
2. Acceptance	.0285	.0250
3. Neg. Reinforcement	.0111	.0182
4a. Content Facilitating	.0474	.0419
4b. Content Questioning	.0653	.0375
4c. Content Telling	.0859	.0611
5a. Instructional Facilitating	.0031	.0062
5b. Instructional Questioning	.0203	.0328
5c. Instructional Telling	.0366	.0289
6a. Social Facilitating	.0044	.0187
6b. Social Questioning	.0116	.0168
6c. Social Telling	.0128	.0211
7. Teacher Working (non-verbal)	.0125	.0230
8. Child Working (non-verbal)	.1592	.1631
9. Child Responds	.3535	.1694
10. Child Initiates	.0549	.0500
11. Silence and Confusion	.0309	.0515

APPENDIX A

The following categories are condensed and adapted from Gage (1968).

Establish cognitive, set framework
- use relevant analogies (or concrete, personal examples)
- explain links (how, why, effect of something)
- provide principle (rule for seeking pattern)
- ask child to call up principle (call up strategy)

Achieve closure
- pull together major points
- link new to old (recall old)
- elicit thought processes (ask for seeking of pattern)
- analyze answer

Obtain attending behavior
- ask child to analyze answer
  why were you right, wrong
  what part do you know, don't know
- broaden search area
- limit search area
  provide practice in series of identified elements

Stimulate transfer
- review successful process
- relate learned to functional activity

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